AF3.0HD

PRINCETON

32" CRT ALL-FORMAT Monitor

User's Manual

10910 Talbert Ave
Fountain Valley, CA 92708

Table Of Contents

Safety Instructions

1. Read all of these instructions.
2. Save these instructions for later use.
3. Follow all warnings and instructions marked on the product.
4. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
5. Do not use this product near water.
6. Do not place this product on an unstable cart, stand or table. The product may fall, causing serious damage to the product.
7. Slots and openings in the cabinet and the back or bottom are provided for ventilation. To ensure reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.
8. This product should be operated from the type of power source indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
9. This equipment is intended to be electrically grounded. This product is equipped with a 3-wire plug with a third (grounding) pin. This plug will only fit into a grounded AC outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact a licensed electrician to replace the outlet with a properly grounded outlet. Do not defeat the purpose of the grounding plug!
10. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
11. If an extension cord is used with this product, make sure that the total of the ampere ratings on the products plugged into the extension cord do not exceed the extension cord ampere rating. Also, make sure that the total of all products plugged into the wall outlet does not exceed 15 amperes.
12. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.
13. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks. Refer all servicing to service personnel.
14. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
    a. When the power cord or plug is damaged or frayed.
    b. If liquid has been spilled into the product.
    c. If the product has been exposed to rain or water.
    d. If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
    e. If the product has been dropped or the cabinet has been damaged.
    f. If the product exhibits a distinct change in performance, indicating a need for service.

FCC Compliance Statement

Note

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will nit occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer of an experienced radio/television technician for help.

Warning

A shielded-type power cord is required in order to meet FCC emission limits and also to prevent interference to the nearby radio and television reception. It is essential that only the supplied power cord be used.
Used only shielded cables to connect I/O devices to this equipment.

Introduction and Features

Introduction

Congratulations on your purchase of the Princeton AF3.0HD widescreen display which combines the entertainment of High Definition TV with the performance of a Computer Monitor for the whole family to enjoy in the largest widescreen direct view display available.

The 30 inch (viewable diagonal) widescreen combined with the integral HiFi Stereo Audio make the AF3.0HD the ideal media system for terrestrial and satellite broadcasts. It can be used with any High Definition Video that conforms to the ASTC HDTV Specification.

As a High Definition TV Monitor the AF3.0HD is capable of synchronizing to formats from standard NTSC through 1920x1080 (Interlaced). As a Computer Monitor for the display of Computer images the AF3.0HD is capable of synchronizing to formats from standard 640x480 (Non-Interlaced) [VGA] through 1024x768 (Non-Interlaced) [XGA]. An intelligent microprocessor-based circuit is used to control the operation of the AF3.0HD so that it automatically synchronizes and adjusts to most popular video modes. With the aid of the user-friendly On Screen Display, convenient and precise adjustment of the AF3.0HD is possible through the use of the Digital Controls.

The AF3.0HD features Digital Scan Conversion which takes standard video from a VCR, DVD player, DSS, etc. and enhances it by doubling the refresh rate and de-interlacing the content into a progressive scan image to simulate High Definition quality from non-High Definition video and broadcasts. Whether the source is Digital, Analog or High Definition, the picture is always sharp and clear.

We truly believe you will enjoy using the Princeton AF3.0HD, the result of our continuing search for product excellence, and invite you to read the rest of this manual to get the most value from your new Home Monitor.

Thank you for making our product your choice.

Features

- Multi-scanning at Horizontal Frequencies from 30kHz to 50kHz and vertical frequencies from 50Hz to 120Hz.
- Formats up to 1024x768.
- 30 inch viewable diagonal Invar Shadow Mask picture tube.
- Fine pitch 16:9 high resolution, widescreen CRT.
- Built-in stereo speakers.
- BBE® Audio enhancement.
- Excellent gray scale linearity.
- Excellent color fidelity.
- Excellent plain field uniformity.
- High light output at specified resolution.
- Displays all HDTV formats and XGA.
- Composite, RGB and VGA input.
- Accepts Tri-Level sync.
- Wide video bandwidth (40MHz).
- Oversized high voltage power supply.
- Double shield low noise structure design.
- RS-232 Remote control port.
- Professional / commerical and High–end home theater applications.
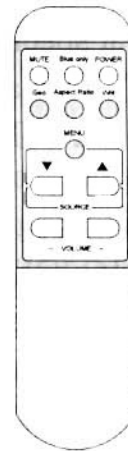- Compatible with VESA VGA, SVGA and XGA.
- Windows® 95 Plug & Play compatible.

Opening the Box

Before operating the Home Monitor, please make sure that all of the following items are included:
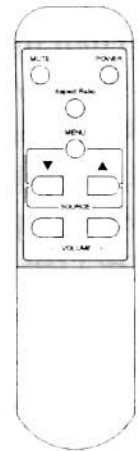
- AF3.0HD Monitor
- User remote controller
- Service remote controller
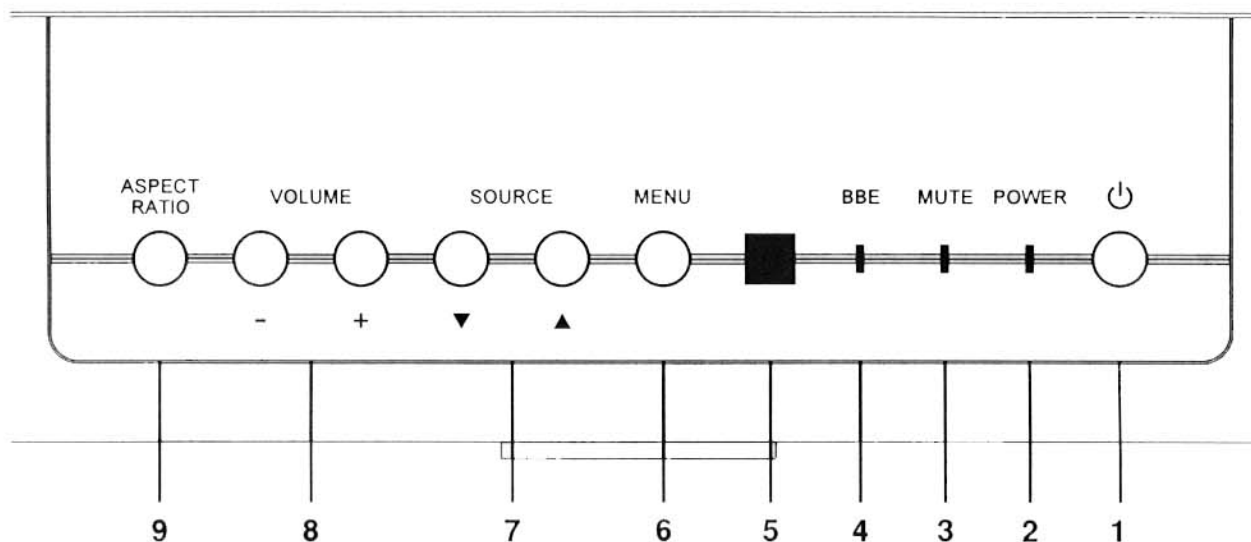- Power cord
- VGA cable
- Installation manual
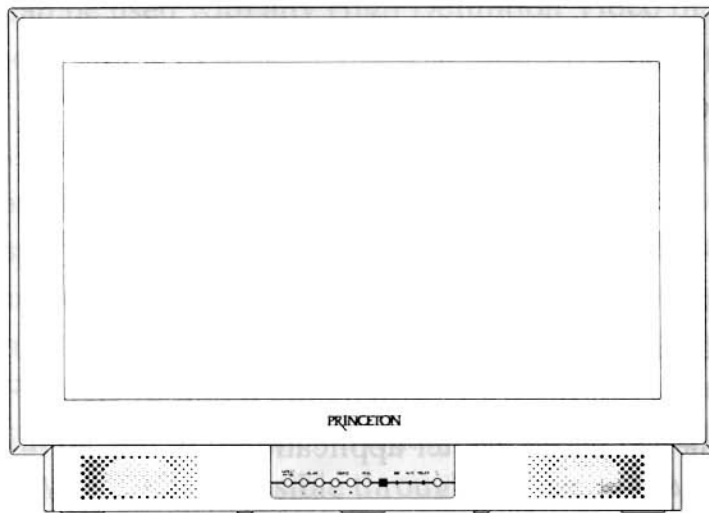
AF3.0HD Monitor

Service remote   User remote

Front Panel

1. **Power Button**

   Powers the unit ON or OFF

2. **Power LED**

   Shows yellow/green when the power is ON and the Power and Signal Cables are properly connected. Shows amber when in Power Saving Mode.

3. **Mute LED**

   Shows red when the AF3.0HD internal speakers have been muted.

4. **BBE® LED**

   Shows green when the AF3.0HD BBE® sound processing is in the active mode.

5. **IR Receiver Window**

   Point the Remote Controller to here when pressing the Controller Buttons so that the commands reach the IR Receiver.

6. **Menu Button**

   Press to display the On-Screen Display (OSD) menu options. To select an option press the button to move the blue highlight on the screen to the right.

7. **Source Buttons (▲ / ▼)**

   Use to step up or down through the six Video Input Modes. After the menu Button has been pressed and the OSD activated these buttons operate as Scroll Up/Down Buttons. As Scroll Up/Down Buttons they are used to scroll the Red Cursor of the OSD Up or Down the Sub-Menu to select a Function for adjustment.
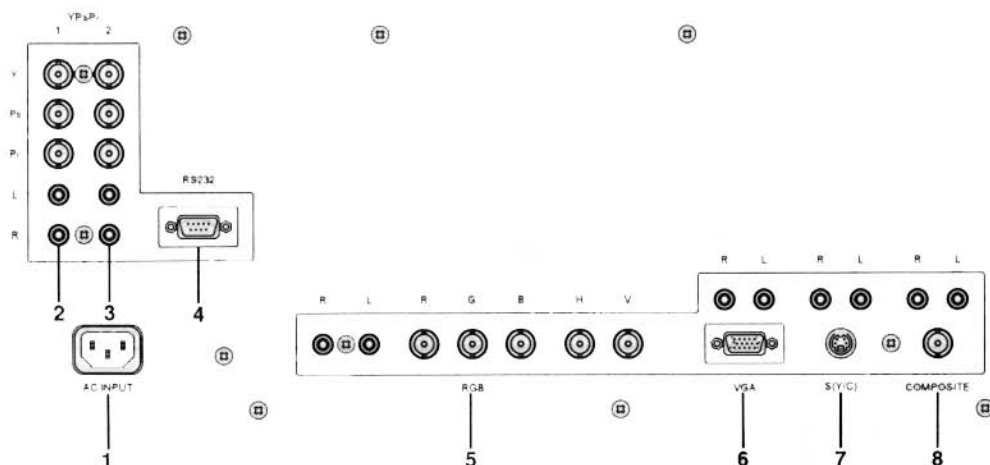
8. **Volume Buttons (+ / -)**

   Use to adjust the Sound Level. After the Menu Button has been pressed and the OSD activated these buttons adjust the value of the selected Function, or select an Aspect Ratio.

9. **Aspect Ratio Button**

   Press to display through OSD the Aspect Ratio menu options.

Back Panel

1. Power Connector
Plug the Power Cord supplied with your AF3.0HD into here and the other end into your Power Socket.

2. YPbPr 1 inputs
Use to connect the Video and Audio output from a HDTV Receiver, HDVCR, HDDVD, etc., to the AF3.0HD. The Y, Pb and Pr use BNC Connectors and the Left and Right Audio use RCA Phono Connectors.

3. YPbPr 2 inputs
Use to connect the Video and Audio output from a HDTV Receiver, HDVCR, HDDVD, etc., to the AF3.0HD. The Y, Pb and Pr use BNC Connectors and the Left and Right Audio use RCA Phono Connectors.

4. RS232 Connector
Use to connect the RS232 port from a HDTV Receiver to the AF3.0HD.

5. RGB Inputs
Use to connect the Video and Audio output from a Computer to the AF3.0HD. The R, G, B, H Sync and V Sync use BNC Connectors and the Left and Right Audio use RCA Phono Connectors.

6. VGA Inputs
Use to connect the Video and Audio output from a Computer to the AF3.0HD. The Video uses a standard VGA Connector and the Left and Right Audio use RCA Phono Connectors.

7. S-Video Inputs
Use to connect the Video and Audio output from a Super VHS(S-VHS) standard Camcorder, VCR, DVD, etc. to the AF3.0HD. The S-VHS Video uses standard S-Video Connector and the Left and Right Audio use RCA Phono Connectors.
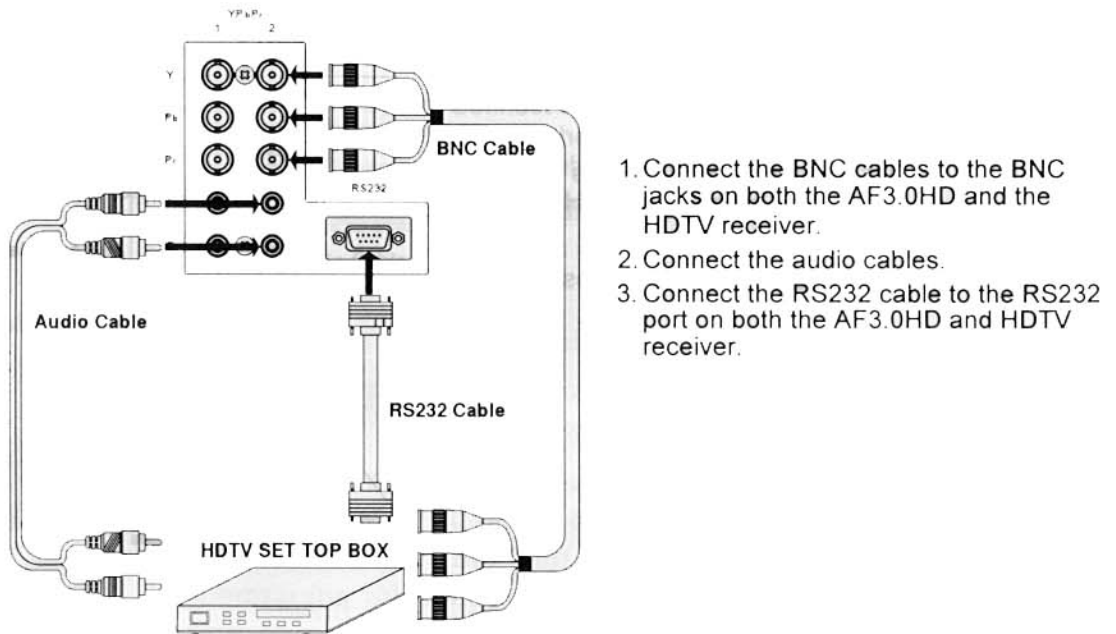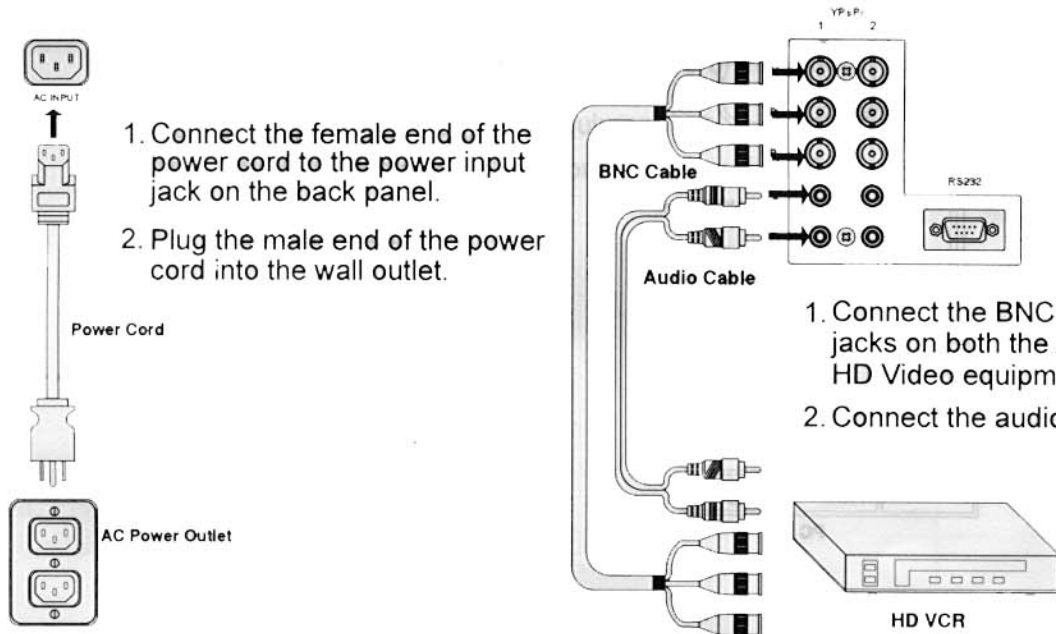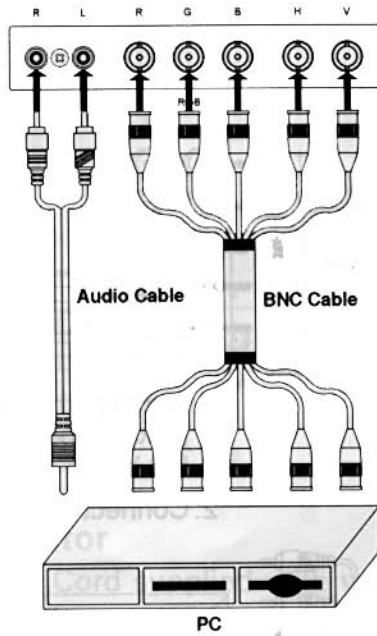
8. Composite Inputs
Use to connect the Video and Audio output from a standard Camcorder, VCR, DVD, etc., to the AF3.0HD. The Composite Video uses a BNC Connector and the Left and Right Audio use RCA Phono Connectors.

Typical Connections

1. Connect the female end of the power cord to the power input jack on the back panel.

2. Plug the male end of the power cord into the wall outlet.

Power Cord

AC INPUT

AC Power Outlet

BNC Cable

Audio Cable

RS232

1. Connect the BNC cables to the BNC jacks on both the AF3.0HD and the HD Video equipment.

2. Connect the audio cables.

HD VCR

BNC Cable

RS232

Audio Cable

RS232 Cable

1. Connect the BNC cables to the BNC jacks on both the AF3.0HD and the HDTV receiver.

2. Connect the audio cables.

3. Connect the RS232 cable to the RS232 port on both the AF3.0HD and HDTV receiver.

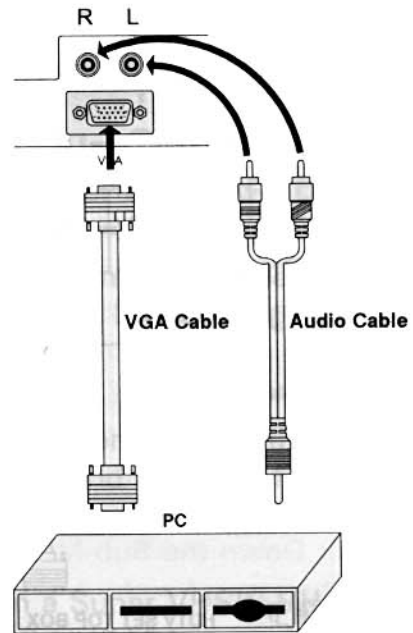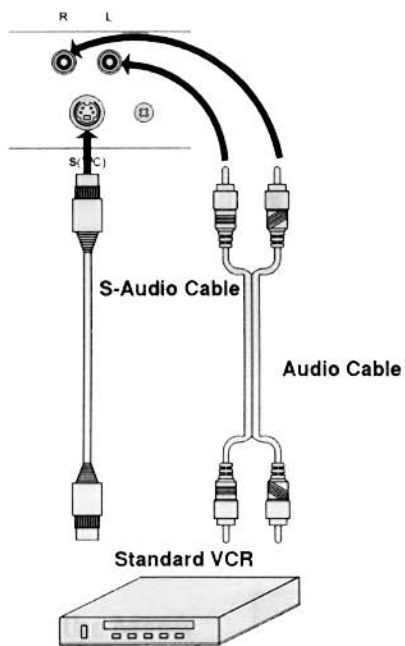HDTV SET TOP BOX

1. Connect the BNC cables to the RGB jacks on both the AF3.0HD and the PC.
2. Connect the audio cables.

1. Connect the VGA cables to the VGA jacks on both the AF3.0HD and the PC.
2. Connect the audio cables.

R   L

S(BNC)

S-Audio Cable

Audio Cable

Standard VCR

1. Connect the S-video cable to the S-video jack on both the AF3.0HD and the standand video equipment.
2. Connect the audio cables.

R   L

COMPOSITE

BNC Cable

Audio Cable
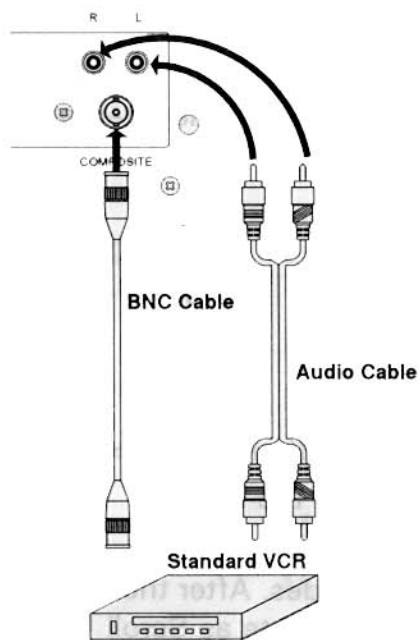
Standard VCR

1. Connect the BNC cable to the composite jack on both the AF3.0HD and the standand video equipment.
2. Connect the audio cables.

User Remote Controller
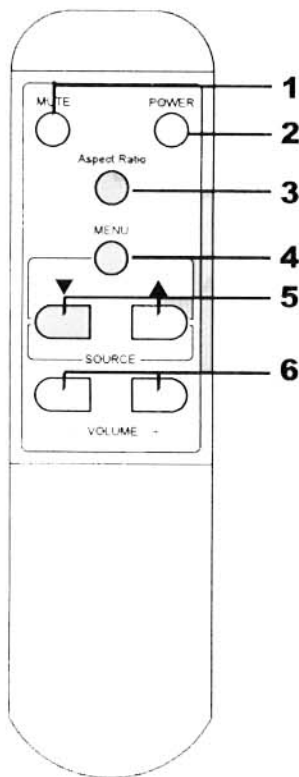
1. Mute Button

Mutes the AF3.0HD internal speakers. Press again to switch the internal speakers on again.

2. Power Button

Powers the unit ON or OFF.

3. Aspect Ratio Button

Press to display the aspect ratio menu options.

4. Menu Button

Press to display the On-Screen Display (OSD) menu options. To select options press the button to move the blue highlight on the screen to the right.

5. Source Buttons (▲ / ▼)

Use to step up or down through the six Video Input Modes. After the Menu Button has been pressed and the OSD activated these buttons operate as Scroll Up/Down Buttons. As Scroll Up/Down Buttons they are used to scroll the Red Cursor of the OSD Up or Down the Sub-Menu to select a function for adjustment.

6. Volume Buttons (+ / -)

Use to adjust the Sound Level. After the Menu Button has been pressed and the OSD activated these buttons adjust the value of the selected Function, or to select an Aspect Ratio.

User Controls

1. Menu mode select : Video mode / Audio mode / Setup mode

a. Press the Menu button: Video mode

VIDEO	AUDIO	SETUP

■ ☼ BLACK LEVEL   45.0KHz 60Hz

◑ CONTRAST

COLOR NTSC

TINT NTSC

COLOR YPbPr

⇩

b. Press the Menu button: Audio mode

VIDEO	AUDIO	SETUP

■ VOLUME   45.0KHz 60Hz

BBE ON/OFF

BBE PROCESS

BBE LOW CONT

⇩

c. Press the Menu button: Setup mode

VIDEO	AUDIO	SETUP

■ MASK ON/OFF   45.0KHz 60Hz

MASK TOP

MASK BOTTOM
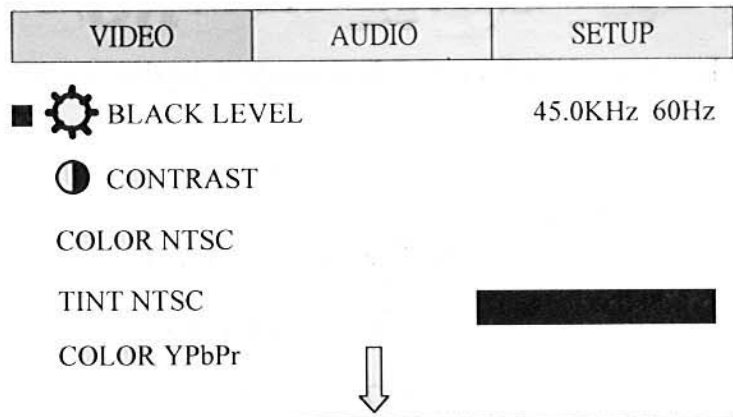
MASK RIGHT   OFF

MASK LEFT

CAPTIONS

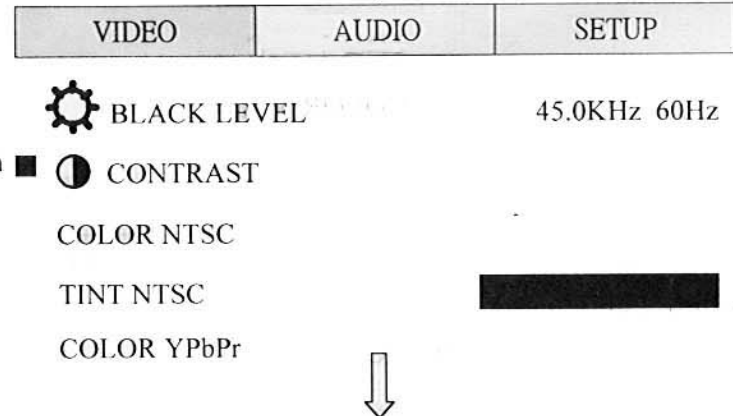**d. Press the Menu button or let the menu screen time out just a few seconds.**

⇩

EXIT

2. Video mode

VIDEO	AUDIO	SETUP

a. Press the Menu button to move the blue indicator at Video mode.

■ ☼ BLACK LEVEL   45.0KHz 60Hz

◐ CONTRAST

COLOR NTSC

TINT NTSC

COLOR YPbPr

⇩

VIDEO	AUDIO	SETUP

b.Press the Source button to scroll the red cursor up/down the sub-menu to select a control for adjustment.

☼ BLACK LEVEL   45.0KHz 60Hz

■ ◐ CONTRAST

COLOR NTSC

TINT NTSC

COLOR YPbPr

⇩

VIDEO	AUDIO	SETUP

c.Press the Volume button to adjust various menu options.

☼ BLACK LEVEL   45.0KHz 60Hz

■ ◐ CONTRAST

COLOR NTSC

TINT NTSC

COLOR YPbPr

⇩

VIDEO	AUDIO	SETUP
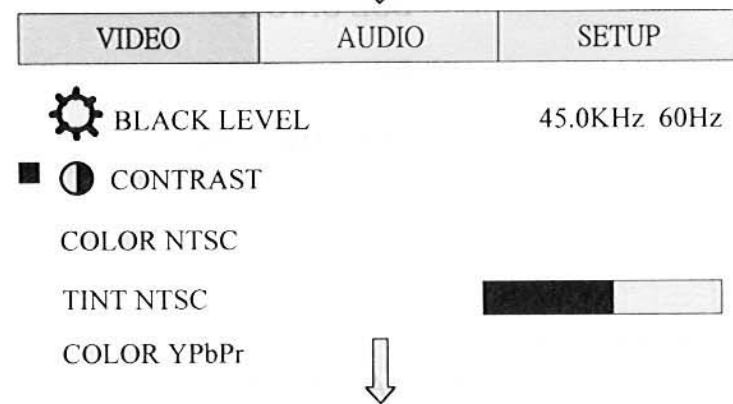
d.Press the Source button to select another settings sub-menu, or press the Menu button to select another menu.

☼ BLACK LEVEL   44.7KHz 60Hz

◐ CONTRAST

COLOR NTSC

■ TINT NTSC

COLOR YPbPr

14
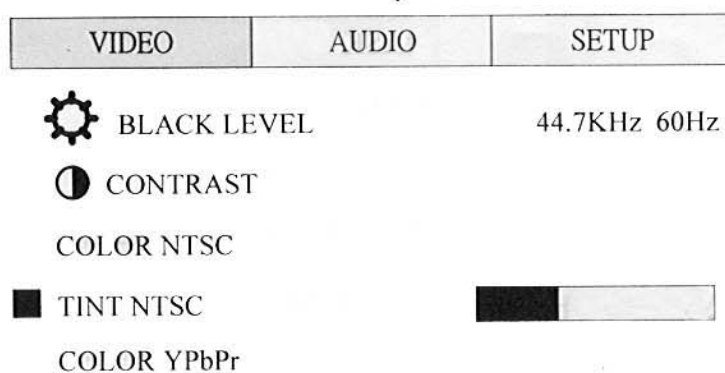
■ ☼ BLACK LEVEL

Adjusts the Black Level (Cut-Off) of the image.

■ ◑ CONTRAST

Adjusts the contrast between the Black and White Level of the image.

■ COLOR NTSC

Adjusts the Color Saturation Level of the image. This adjustment is only for the non-HD Video modes.

■ TINT NTSC

Adjusts the Color Tint (Hue) of the image. This control is typically used to adjust the display for correct skin tones. This adjustment is only for the non-HD Video modes.

■ COLOR YPbPr

Adjusts the Color Saturation Level of the image. This adjustment is only for the HD Video modes.

3. Audio mode

VIDEO	AUDIO	SETUP

a. Press the Menu button to move the blue indicator at Audio mode.

■ VOLUME   45.0KHz 60Hz

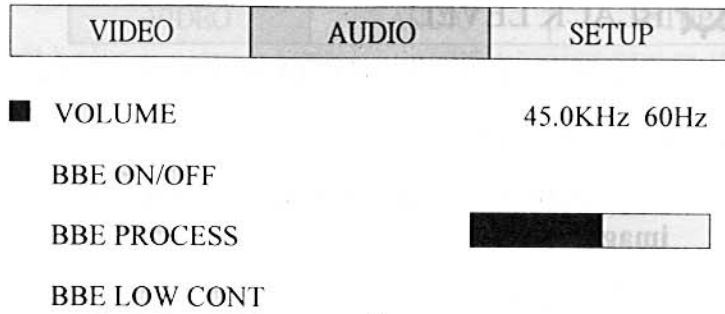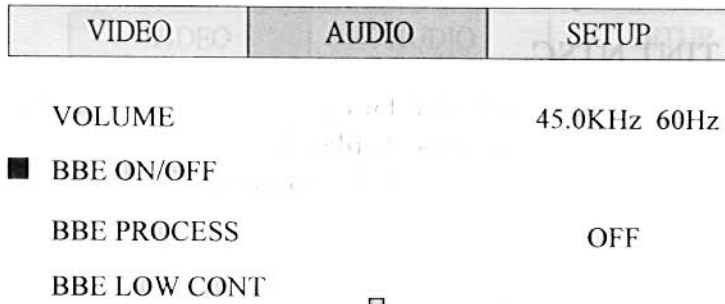BBE ON/OFF

BBE PROCESS

BBE LOW CONT

⇩

VIDEO	AUDIO	SETUP

b.Press the Source button to scroll the red cursor up/down the sub-menu to select a control for adjustment.

VOLUME   45.0KHz 60Hz

■ BBE ON/OFF

BBE PROCESS   OFF

BBE LOW CONT

⇩

VIDEO	AUDIO	SETUP

c.Press the Volume button to adjust various menu options.

VOLUME   45.0KHz 60Hz

■ BBE ON/OFF

BBE PROCESS   ON

BBE LOW CONT

⇩

VIDEO	AUDIO	SETUP
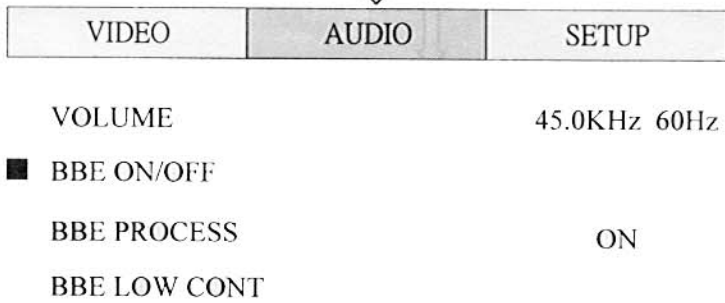
d.Press the Source button to select another settings sub-menu, or press the Menu button to select another menu.

VOLUME   44.7KHz 60Hz

BBE ON/OFF

BBE PROCESS

■ BBE LOW CONT

16
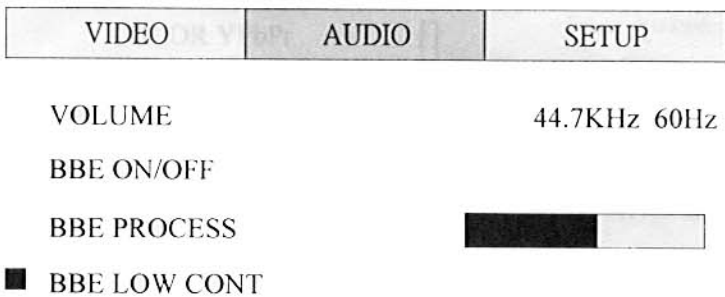
■ VOLUME

Adjusts the sound level.

■ BBE ON/OFF

Selects the BBE sound process mode ON or OFF.

■ BBE PROCESS

Activates the BBE process when BBE is ON.

■ BBE LOW CONT

Adjustment of bass boost plus dynamic balance of the treble constituent of the sound when BBE is ON.

4. Setup mode

VIDEO	AUDIO	SETUP

a. Press the Menu button to move the blue indicator at Setup mode.

- ■ MASK ON/OFF   45.0KHz 60Hz
- MASK TOP
- MASK BOTTOM
- MASK RIGHT   ON
- MASK LEFT
- CAPTIONS

⇩

VIDEO	AUDIO	SETUP

b.Press the Source button to scroll the red cursor up/down the sub-menu to select a control for adjustment.

- MASK ON/OFF   45.0KHz 60Hz
- ■ MASK TOP
- MASK BOTTOM
- MASK RIGHT
- MASK LEFT
- CAPTIONS

⇩

VIDEO	AUDIO	SETUP

c.Press the Volume button to adjust various menu options.

- MASK ON/OFF   45.0KHz 60Hz
- ■ MASK TOP
- MASK BOTTOM
- MASK RIGHT
- MASK LEFT
- CAPTIONS

⇩

VIDEO	AUDIO	SETUP

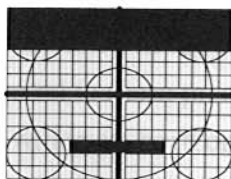**d.Press the Source button to select another settings sub-menu, or press the Menu button to select another menu.**

- MASK ON/OFF   45.0KHz 60Hz
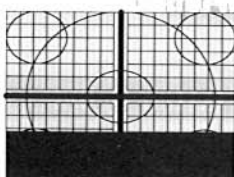- MASK TOP
- MASK BOTTOM
- MASK RIGHT
- ■ MASK LEFT
- CAPTIONS

18

■ MASK ON/OFF
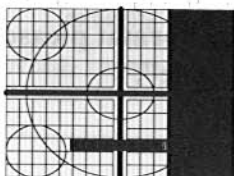> **Switch Text Mask ON or OFF.**

■ MASK TOP
> **Adjusts the top mask area when MASK is ON.**

■ MASK BOTTOM
> **Adjusts the bottom mask area when MASK is ON.**

■ MASK RIGHT
> **Adjusts the right mask area when MASK is ON.**

■ MASK LEFT
> **Adjusts the left mask area when MASK is ON.**
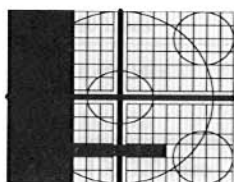
■ CAPTIONS
> **Switch caption ON or OFF. This function only effective with composite input and s-video input.**

■ POWER SAVING
> **Swith power saving mode ON or OFF.**

■ COLOR TEMP
> **Select color preset, press the "Volume +/-" button to select 6500°K / 5400°K / Custom.**

■ RECALL
> **Recall original factory presets.**

■ DEGAUSS
> **Eliminates magnetic field build up from the display that could cause discoloration. The unit automatically degausses on start-up.**
> **Note : normally is it only necessary to degauss if the unit has been moved.**

5. Aspect Ratio

Depending upon the program content you can choose the matching format from the OSD menu.

ASPECT RATIO
1.33 NTSC
1.66 EURO VISTA
1.77 HDTV
ANAMDRPHIC

IF the video tape or video source is standard format please choose "1.33 NTSC".

ASPECT RATIO
1.33 NTSC
1.66 EURO VISTA
1.77 HDTV
ANAMDRPHIC

IF the video tape or video source is widescreen format please choose "1.77 HDTV".

ASPECT RATIO
1.33 NTSC
1.66 EURO VISTA
1.77 HDTV
ANAMDRPHIC

IF the video tape or video source doesn't specify the format please choose "Anamorphic".

Factory Timing Mode

◆ **Description**

This multifrequency Home Theater Display operates at horizontal frequencies between 30KHz to 50KHz and vertical frequencies between 50Hz to 120Hz. Because of its microprocessor-based design, it offers autosynchronization and autosizing capabilities. The AF3.0HD offers 6 preprogrammed settings as listed in the table to the follow.

The AF3.0HD is not limited to these preset factory timing modes. Because it is Multi-scanning, it can accept any signal within its horizontal and vertical frequency ranges. If the resolution and frequency are beyond the Unit's capabilities, it will display, "OUT OF RANGE." In this case, the resolution and frequency should be changed to a range within the Home Unit's capabilities.

◆ **Prest Modes**

Mode	640 x 480 @ 60Hz		800 x600 @ 72Hz		1024 x768 @ 60Hz	
Horizontal Pixels	640 Pixels		800 Pixels		1024 Pixels	
Vertical Pixels	480 Lines		600 Lines		768 Lines	
Horizontal Frequency	31.469 kHz		48.077 kHz		48.363 kHz	
Vertical Frequency	59.940 Hz		72.188 Hz		60.004 Hz	
Pixel Clock	25.175 MHz	39.722 nSec	50.000 N Hz	20.00 nSec	65.000 MHz	15.385 nSec
Horizontal Sync Polarity	-		+		-	
Vertical Sync Polarity	-		+		-	

Mode	480 P		720 P		1080 I	
Horizontal Pixels	640 Pixels		1280 Pixels		1920 Pixels	
Vertical Pixels	480 Lines		720 Lines		1080 Lines	
Horizontal Frequency	31.469 kHz		45.000 kHz		33.750 kHz	
Vertical Frequency	60.000 Hz		60.000 Hz		60.000 Hz	
Pixel Clock	25.175 MHz	39.722 nSec	74.25 MHz	13.468 nSec	75.25 MHz	13.468 nSec
Horizontal Sync Polarity	Sync – on - Y		Sync – on - Y		Sync – on - Y	
Vertical Sync Polarity						

Power Management

◆ **Enable power saving mode with O.S.D menu.**

◆ **Definition of Modes**

There are three modes of operation for the AF3.0HD. These are ON and SUSPEND, and OFF.

ON— Both Horizontal and Vertical syncs are present and the monitor is in normal operation.

SUSPEND— Horizontal or / and Vertical sync is inactive per VESA DPMS spec, for 2 minutes. All parts of the monitor are disabled except for the CRT heater and the Detection Logic Circuit. With CRT heater 'hot', the monitor is able to perform a quick start when both Horizontal and Vertical signals are active again.

OFF— Both Horizontal or / and Vertical sync are inactive per VESA DPMS spec. for 10 inutes and all parts of the monitor are disabled including the CRT heater.

AF3.0HD will stay off mode even Horizontal and Vertical signals are active again. Need push power on / off switch to restart.

◆ **Power consumption**

Mode	Power Consumption
On	200W
Suspend	< 30W
Off	< 5W

◆ **LED INDICATION**

| MODE	POWER LED
NORMAL	Yellow green
SUSPEND	Amber
OFF	Off

Specifications

- ◆ **CRT Size.......** 32" (30" viewable diagonal)
- ◆ **CRT Type.......** 0.73mm stripe trios at center,105° diagonal deflection angle INVAR

  Shadow Mask

- ◆ **Max. Resolution.......** 1920 x 1080 (interlaced)

  1024 x 768 (non-interlaced)

- ◆ **Synchronization**
  - · **Horizontal.......** 30KHz - 50KHz
  - · **Vertical.......** 50Hz - 120Hz

- ◆ **Display Size (H x V)**
  - · **Full Scan.......** 668mm x 378mm

- ◆ **Video Dot Clock.......** 40MHz

- ◆ **Input Signal**
  - · **VGA.......** Video: RGB Analog, 0.7Vp-p / 75 Ohms

    Sync: Separate Sync (TTL level)

    Horizontal Sync: Positive / Negative

    Vertical Sync: Positive / Negative

  - · **RGBHV.......** Video: RGB Analog, 0.7Vp-p / 75 Ohms

    Sync: Separate Sync (TTL level)

    Horizontal Sync: Positive / Negative

    Vertical Sync: Positive / Negative

  - · **Composite Video.......** 1Vp-p / 75 Ohms (NTSC Compatible)

  - · **S Video.......** 1Vp-p / 75 Ohms (NTSC Compatible)

  - · $\mathbf{Y_1 P_{b1} P_{r1}}$**.......** Y: 1Vp-p (Picture 0.7Vp-p, Sync 0.3Vp-p) / 75 Ohms

    P_b : ± 0.35Vp-p / 75 Ohms

    P_r : ± 0.35Vp-p / 75 Ohms

  - · $\mathbf{Y_2 P_{b2} P_{r2}}$**.......** Y: 1Vp-p (Picture 0.7Vp-p, Sync 0.3Vp-p) / 75 Ohms

    P_b : ± 0.35Vp-p / 75 Ohms

    P_r : ± 0.35Vp-p / 75 Ohms

- ◆ **Audio**
  - · **Output Power (RMS).......** 5Wx2 (10% THD)
  - · **Input Signal......** 0.2 - 2.0 Vrms, >12Kohm.
  - · **Total Harmonic Distortion (THD)......** 0.3% (3Wx2)
  - · **Frequency Response ± 3db......** 50Hz - 17KHz

- **RS232.......** UART
- **Power Input.......** Auto-switch, AC 90 - 240V, 50Hz / 60Hz
- **Power Consumption.......** 200 Watts (Typical)
- **Recommended Ambiance**
  - **Operating Temp. ....** 32°F to 104°F (0℃ to 40℃)
  - **Storage Temp. ......** -40°F to +140°F (-40℃ to +60℃)
  - **Humidity.......** 5% to 90%
- **Dimensions (H x W x D).......** 806mm x 580mm x 582mm
- **Weight Net.......** 65kg
- **Plug & Play.......** VESA® DDC1/2B
- **Certifications**
  - **Safety.......** UL, CUL, DHHS, TUV, CE
  - **EMI Standard.......** FCC Class B
  - **Power Saving.......** EPA Energy Star^{SM}
- **Power Factor Consumption**
  - **AC 115V......** PFC comsumption 99%
  - **AC 230V......** PFC comsumption 97%

Pin Assignment

The video signal cable pin assignment is listed in the table below. This is for your information only. Please do not attempt to devise your own connections as this may damage the Home Monitor.
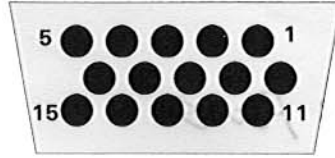
Pin 1	Red
Pin 2	Green
Pin 3	Blue
Pin 4	No Connection
Pin 5	DDC Return
Pin 6	Red Ground
Pin 7	Green Ground
Pin 8	Blue Ground
Pin 9	No Connection
Pin 10	Sync Return
Pin 11	No Connection
Pin 12	SDA
Pin 13	Horizontal Sync
Pin 14	Vertical Sync
Pin 15	SCL

NOTE:

BBE Licenced by BBE Sound, Inc. under USP4638258, 4482866. BBE and BBE symbol are trademarks of BBE Sound, Inc.